

What Is Claimed Is:

1. A myocardial revascularization catheter comprising:
  - an outer shaft having a lumen, an inner surface, a first stop, a second stop, and a distal end; and
  - an inner shaft having a distal end, an outside surface, and a first catch,
    - the inner shaft being slidably and rotatably disposed in the outer shaft,
    - the inner shaft having a piercing tip,
      - the piercing tip moveable from a first position to a second position,
      - the first position outside of the outer shaft,
      - the second position outside of the outer shaft,
    - the catch being arrested by the first stop from further purely longitudinal movement towards the distal end of the outer shaft when the piercing tip is in the first position,
    - the catch being arrested by the second stop from further purely longitudinal movement towards the distal end of the outer shaft when the piercing tip is in the second position,
    - wherein rotation of the inner shaft allows for distal movement of the catch past the first stop and towards the distal end of the outer shaft.
2. The myocardial revascularization catheter of claim 1 wherein rotation of the inner shaft allows for distal movement of the catch past the second stop and towards the distal end of the outer shaft.
3. The myocardial revascularization catheter of claim 1 wherein the outer shaft has a first injection port.
4. A myocardial revascularization catheter comprising:
  - an outer tube having a lumen therein and a distal end, the outer tube having an atraumatic flange;

an inner tube having a lumen therein and a proximal end, the outer tube at least partially positioned within the outer tube;

a first piercing tube slidably positioned within the inner tube, the first piercing tube having a piercing tip;

a second piercing tube slidably positioned within the inner tube, the second piercing tube having a piercing tip;

the first piercing tip extendable past the atraumatic flange; and

the second piercing tip extendable past the atraumatic flange.

5. The myocardial revascularization catheter of claim 4 wherein the first piercing tube has a first injection port and the second injection tube has a second injection port.

6. The myocardial revascularization catheter of claim 4 wherein the inner tube is slidably positioned within the outer tube.

7. The myocardial revascularization catheter of claim 4 wherein the piercing tip of the first piercing tube is bendable when positioned outside the outer tube.

8. The myocardial revascularization catheter of claim 4 wherein the inner tube forms more than one lumen at the proximal end of the inner tube.

9. The myocardial revascularization catheter of claim 4 wherein the first piercing tube and the second piercing tube share the same longitudinal axis.

10. A method of myocardial revascularization comprising:  
providing a therapeutic;  
providing a radiopaque contrast media;  
injecting the therapeutic through a lumen into the myocardium of the heart;  
injecting the radiopaque contrast media through a lumen into myocardium of the heart,

the location of the injection the radiopaque material being chosen to indicate the injection point of the injection of the therapeutic.

11. The method of myocardial revascularization of claim 10 wherein the radiopaque contrast media is injected contemporaneously with the therapeutic.

12. The method of myocardial revascularization catheter of claim 10 wherein the radiopaque contrast marker surrounds previously injected therapeutic.

13. The method of myocardial revascularization catheter of claim 12 wherein the radiopaque contrast marker forms a circle around the previously injected therapeutic.

14. The method of myocardial revascularization catheter of claim 10 wherein the injection of therapeutic is performed under flouroscopy.